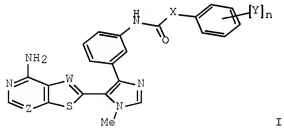
L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:823713 CAPLUS Full-text
DN 143:211925
TI Preparation of substituted thieno[2,3-d]pyrimidines and thiazolo[2,3-d]pyrimidines as inhibitors of Tie-2 receptor tyrosine kinase (TEK)
IN Jones, Clifford David; Luke, Richard William Arthur; Mccoull, William
PA Astrazeneca AB, Swed.; Astrazeneca UK Limited
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2005075483 | A1 | 20050818 | WO 2005-GB339 | 20050201 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1716155 | A1 | 20061102 | EP 2005-702081 | 20050201 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS | | | | |
| CN 1942475 | A | 20070404 | CN 2005-80011955 | 20050201 |
| JP 2007520536 | T | 20070726 | JP 2006-551903 | 20050201 |
| US 2007135455 | A1 | 20070614 | US 2006-588621 | 20060804 |
| IN 2006MN01015 | A | 20070629 | IN 2006-MN1015 | 20060828 |
| PRAI GB 2004-2518 | A | 20040205 | | |
| WO 2005-GB339 | W | 20050201 | | |

OS CASREACT 143:211925; MARPAT 143:211925
GI



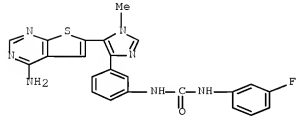

I

AB The title compds. I [Z, W = N, CH; X = NH, CH2; Y = F, Cl, Br, I; n = 1-3] were prepared for use in the production of an anti-angiogenic effect in a warm blooded animal such as man. Thus, reacting 6-[4-(3-aminophenyl)-1-methyl- 1H-imidazol-5-yl]thieno[2,3-d]pyrimidin-4-amine (preparation given) with 3-fluorophenyl isocyanate in THF afforded 77% I [W = CH; Z = N; X = NH; Y = 3-F] which showed IC50 of 16 μM in in vitro Tie-2 receptor tyrosine kinase inhibition assay, and IC50 of 0.4 μM in cellular Tie-2 autophosphorylation assay. The pharmaceutical composition comprising the compound I is disclosed.

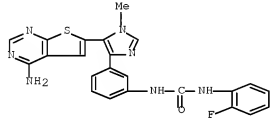
IT 862460-49-9P 862460-50-2P 862460-51-3P
862460-52-4P 862460-53-5P 862460-54-6P
862460-55-7P 862460-56-8P 862460-57-9P

862460-58-0P 862460-59-1P 862460-60-4P
862460-61-5P 862460-62-6P 862460-63-7P
862460-64-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)(preparation of substituted thieno[2,3-d]pyrimidines and thiazolo[2,3-d]pyrimidines as inhibitors of Tie-2 for use in the production of an anti-angiogenic effect)

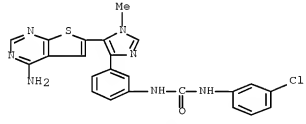
RN 862460-49-9 CAPLUS
CN Urea, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(3-fluorophenyl)- (CA INDEX NAME)



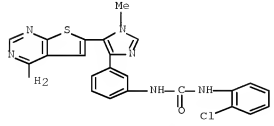
RN 862460-50-2 CAPLUS
CN Urea, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(2-fluorophenyl)- (CA INDEX NAME)



RN 862460-51-3 CAPLUS
CN Urea, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(3-chlorophenyl)- (CA INDEX NAME)

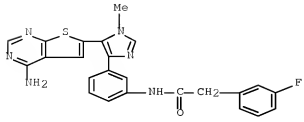


RN 862460-52-4 CAPLUS
CN Urea, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(2-chlorophenyl)- (CA INDEX NAME)

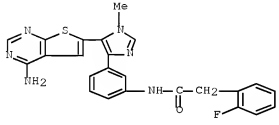


RN 862460-53-5 CAPLUS
CN Benzeneacetamide, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-

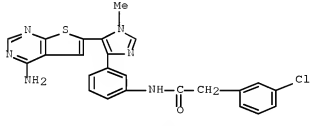
imidazol-4-yl]phenyl]-3-fluoro- (CA INDEX NAME)



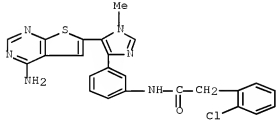
RN 862460-54-6 CAPLUS
CN Benzeneacetamide, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-2-fluoro- (CA INDEX NAME)



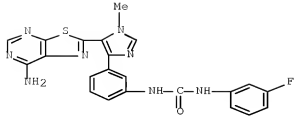
RN 862460-55-7 CAPLUS
CN Benzeneacetamide, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-3-chloro- (CA INDEX NAME)



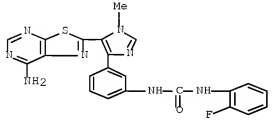
RN 862460-56-8 CAPLUS
CN Benzeneacetamide, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-2-chloro- (CA INDEX NAME)



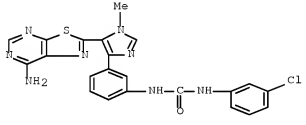
RN 862460-57-9 CAPLUS
CN Urea, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(3-fluorophenyl)- (CA INDEX NAME)



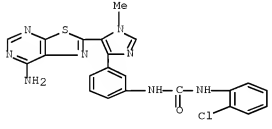
RN 862460-58-0 CAPLUS
CN Urea, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(2-fluorophenyl)- (CA INDEX NAME)



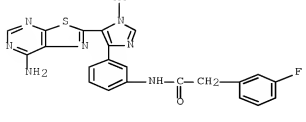
RN 862460-59-1 CAPLUS
CN Urea, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(3-chlorophenyl)- (CA INDEX NAME)



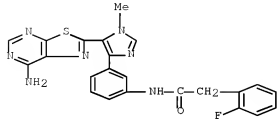
RN 862460-60-4 CAPLUS
CN Urea, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-(2-chlorophenyl)- (CA INDEX NAME)



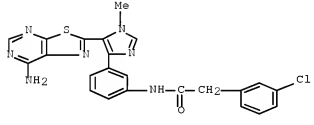
RN 862460-61-5 CAPLUS
CN Benzeneacetamide, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-3-fluoro- (CA INDEX NAME)



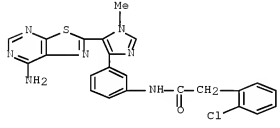
RN 862460-62-6 CAPLUS
CN Benzeneacetamide, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-2-fluoro- (CA INDEX NAME)



RN 862460-63-7 CAPLUS
CN Benzeneacetamide, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-3-chloro- (CA INDEX NAME)



RN 862460-64-8 CAPLUS
CN Benzeneacetamide, N-[3-[5-(7-aminothiazolo[5,4-d]pyrimidin-2-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-2-chloro- (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:120856 CAPLUS Full-text
DN 140:163889
TI Preparation of condensed pyridines and pyrimidines as Tie2 receptor tyrosine kinase inhibitors and their anti-angiogenic effect
IN Luke, Richard William Arthur; Jones, Clifford David; McCoull, William; Hayter, Barry Raymond
PA Astrazeneca AB, Swed.; Astrazeneca UK Limited
SO PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004013141 | A1 | 20040212 | WO 2003-GB3275 | 20030801 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2494421 | A1 | 20040212 | CA 2003-2494421 | 20030801 |
| | AU 2003246972 | A1 | 20040223 | AU 2003-246972 | 20030801 |
| | EP 1537112 | A1 | 20050608 | EP 2003-766443 | 20030801 |
| | EP 1537112 | B1 | 20060419 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | BR 2003013078 | A | 20050712 | BR 2003-13078 | 20030801 |
| | CN 1688579 | A | 20051026 | CN 2003-823754 | 20030801 |
| | JP 2005538118 | T | 20051215 | JP 2004-525533 | 20030801 |
| | AT 323702 | T | 20060515 | AT 2003-766443 | 20030801 |
| | NO 2005000418 | A | 20050428 | NO 2005-418 | 20050125 |
| | ZA 2005000863 | A | 20060222 | ZA 2005-863 | 20050128 |
| | MX 2005PA01389 | A | 20050428 | MX 2005-PA1389 | 20050203 |
| | US 2005256140 | A1 | 20051117 | US 2005-523401 | 20050203 |
| PRAI | GB 2002-18168 | A | 20020806 | | |
| | GB 2003-12356 | A | 20030530 | | |
| | WO 2003-GB3275 | W | 20030801 | | |

OS MARPAT 140:163889
GI

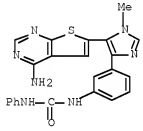
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein ACC = fused 5-membered heteroaryl ring; G = O, S and NH and derivs.; Z = N and CH and derivs.; Q1 = (un)substituted hetero/aryl; R1 = H, halo, CF3, CN, NO2, OH and derivs., NH2 and derivs., SH and derivs., N-alkyl/N,N-dialkyl/carbamoyl, alk(en/yn)yl, N-alkyl/alkanesulfonylamino, N-alkylsulfamoyl, etc.; R2 = H, , OH, halo, alkyl, alkoxy, formyl, alkyl/dialkyl/amino; R3 = independently as defined for R4, provided that R3 is not H, and when R3 is attached to a N atom in A, R3 is not halo; R4 = H, halo, CF3, OCF3, CN, NC, NO2, OH and derivs., SH and derivs., NH2 and derivs., formyl, CO2H and derivs. , carbamoyl, N-alkyl/N,N-dialkyl/sulfamoyl, alk(en/yn)yl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkanoyl, alkanesulfonylamino, etc.] were prepared as Tie2 receptor tyrosine kinase inhibitors for use in the production of an anti-angiogenic effect in a warm-

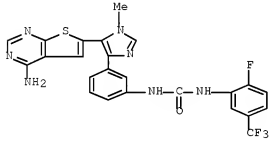
blooded animal. Thus, reacting II (preparation given) with 1-[(isocyanophenylmethyl)sulfonyl]-4-methylbenzene in the presence of piperazine/THF for 6 days gave the thieno[2,3-d]pyrimidine III in 48% yield. In a cellular assay, II inhibited autophosphorylation of the Tie2 receptor with an IC50 value of 2.2 μM. I are angiogenesis inhibitors for treating neoplasm (no data).

IT 655256-44-3P, 1-[3-[5-(4-Aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-3-phenylurea 655256-48-7P, 1-[3-[5-(4-Aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-3-[2-fluoro-5-(trifluoromethyl)phenyl]urea 655256-49-8P, 1-[4-[5-(4-Aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-3-phenylurea 655256-53-4P, 1-[4-[5-(4-Aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-3-[2-fluoro-5-(trifluoromethyl)phenyl]urea
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)(Tie2 receptor tyrosine kinase inhibitor; preparation of condensed ‘ pyridines and pyrimidines as Tie2 receptor tyrosine kinase inhibitors)

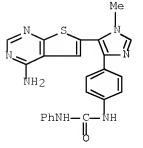
RN 655256-44-3 CAPLUS
CN Urea, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-phenyl- (CA INDEX NAME)



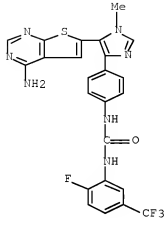
RN 655256-48-7 CAPLUS
CN Urea, N-[3-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]- (CA INDEX NAME)



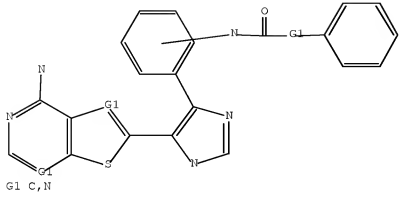
RN 655256-49-8 CAPLUS
CN Urea, N-[4-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-phenyl- (CA INDEX NAME)



RN 655256-53-4 CAPLUS
CN Urea, N-[4-[5-(4-aminothieno[2,3-d]pyrimidin-6-yl)-1-methyl-1H-imidazol-4-yl]phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]- (CA INDEX NAME)



```
=> d l2; d his; log y
L2 HAS NO ANSWERS
L1              STR
```




```
Structure attributes must be viewed using STN Express query preparation.
L2              QUE  ABB=ON  PLU=ON  L1

     (FILE 'HOME' ENTERED AT 09:48:06 ON 21 NOV 2007)

     FILE 'REGISTRY' ENTERED AT 09:48:28 ON 21 NOV 2007
L1              STRUCTURE UPLOADED
L2              QUE L1
L3            2 S L1
L4           20 S L1 FUL

     FILE 'CAPLUS' ENTERED AT 09:49:07 ON 21 NOV 2007
L5            2 S L4


COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    11.01     183.32

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -1.56      -1.56

STN INTERNATIONAL LOGOFF AT 09:49:48 ON 21 NOV 2007
```